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EXAMINER

LEE, CHEUKFAN

ART UNIT

PAPER NUMBER

2625

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/604,788 | <b>Applicant(s)</b><br>KUAN ET AL. |  |
|                              | <b>Examiner</b><br>Cheukfan Lee      | <b>Art Unit</b><br>2625            |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 10-30 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7, 8, 10 and 11 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 6 and 12-30 is/are rejected.
- 7) ☒ Claim(s) 2 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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1. Claims 1-8 and 10-30 are pending. Claims 1, 7, 12, 17, 23, and 27 are independent.
2. The indicated allowability of claims 1, 3, 5, 6, and 12-30 is withdrawn in view of the newly discovered reference(s) to Hu et al. (U.S. Patent No. 6,104,510). Rejections based on the newly cited reference(s) follow.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5, 6, and 12-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hu et al. (U.S. Patent No. 6,104,510).

Regarding claim 17, Hu et al. discloses a document illuminating system comprising a fluorescent lamp (314), a red LED (310, according col. 6) (and a green LED 312, according to col. 6), wherein the fluorescent lamp (314) is turned on upon the document being ready to be scanned and kept on during the entire scanning process to generate a blue component signal, and the red LED (310) is turned on for only a predetermined time period counted by an inherent timer (see the "ON" signal, col. 6, lines 40-41) and shorter than the time period required for the entire scanning process, such that in the predetermined time period during which both the red LED (310) and the

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fluorescent lamp (314) are "ON", a mixed red signal is generated (Figs. 3A and 4, col. 6, lines 11-59). The fluorescent lamp (314) corresponds to the claimed lamp having a longer warm-up time, the red LED (310) corresponds to the claimed heating light source having a shorter warm-up time, and the predetermined time counted by the inherent timer corresponds to the claimed a set time period. It is inherent that the warm-up time period of the fluorescent lamp is longer than the warm-up time period of the LED.

Thus, the predetermined time period during which the red LED (310) is "ON" is within the time period (during the entire scanning process) during which the fluorescent lamp (314) is "ON".

Hu et al. does not specifically disclose whether the red LED (310) is turned on (or powered up) at the same time the fluorescent lamp (314) is turned on. However, one of ordinary skill in the art would have realized that it would have been a design choice to generate the mixed red signal first (i.e., by turning on the red LED first at the time the fluorescent lamp is turned on) before other component signals (including the blue component signal generated when only the fluorescent lamp 314 is "ON"). Therefore, it would have been an obvious matter of design choice to have the red LED (310) turned on at the same time the fluorescent lamp (314) is turned on.

Thus, according to the above, a method corresponding to the obvious system of Hu et al. comprises powering a lamp (fluorescent lamp 314) and a heating light source (red LED 310), a warm-up time period of the lamp (314) being longer than a warm-up time period of the heating light source (red LED 310), starting a timer (inherent timer discussed above) upon powering of the lamp (fluorescent lamp 314) and the heating

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light source (red LED 310), and upon expiration of a set time period (the predetermined time period discussed above), ceasing to power the heating light source (since after the predetermined time period, the red LED is not "ON" any more).

Regarding claims 18, 19 and 22, light from the lamp (fluorescent lamp 314) and the heating light source (red LED 310) are received at a photodetector (304 in Fig. 3A) following reflection from a document. The document is scanned with light from the lamp (314) and heating light source (310).

Regarding claim 20, the lamp is a fluorescent lamp (314).

Regarding claim 21, the fluorescent lamp (314) is considered a cold cathode fluorescent lamp.

Claim 23 is rejected for the reason given for claim 17. Please to refer to the discussion for claim 17.

For claim 24, see discussion for claims 18 and 19.

For claims 25 and 26, see discussions for claims 20 and 21, respectively.

Claims 27 written in a means-plus-function formation corresponds to the method claim 17 discussed above and thus is rejected for the reason given for claim 17.

For claim 28, see discussion for claims 18 and 19.

For claim 29, see discussion for claim 21.

Regarding claim 30, the scanner (100) of Hu et al. is one of a flat bed scanner and a paper feed scanner (see col. 4, lines 15-20 and 56-60).

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The claim 12 device is not patentably distinct from the obvious system of Hu et al. discussed for claim 17. Note that the fluorescent (314) of Hu et al. corresponds to the claimed lamp for generating light, the red LED (310) corresponds to the claimed heating light source for generating light, and the inherent timer for counting the predetermined time period during which the red LED (310) is "ON" corresponds to the claimed timer for counting out a predetermined time period. A controller is inherent in Hu et al. for controlling operation of the device as claimed. As discussed for claim 17, the warm-up time period of the fluorescent lamp (314) is inherently longer than a warm-up time period of the heating light source (red LED 310). The inherent controller turns off the heating light source (red LED 310) when the end of the predetermined time period during which the red LED is kept "ON" has reached. This predetermined time period starts from both the fluorescent lamp (314) and the red LED (310) being enabled or turned on at the same time as discussed above for claim 17.

With regard to the claim limitation "the heating light source is capable of generating more heat than the lamp", since "capable" is used in the claim language, the heating light source of Hu et al., i.e., the red LED (310), is capable of generating more heat than the fluorescent lamp (314) if the red LED is left "ON" for a long time and the fluorescent lamp (314) is not.

Regarding claim 13, the lamp is a fluorescent lamp (314).

Regarding claim 14, the fluorescent lamp (314) is considered a cold cathode fluorescent lamp.

Regarding claim 15, the photosensor (304 in Fig. 3A) of Hu et al. detects light generated by the fluorescent lamp (314) and the heating light source (red LED 310).

Regarding claim 16, the scanner (100) of Hu et al. is one of a flat bed scanner and a paper feed scanner (see col. 4, lines 15-20 and 56-60).

The claim 1 scanning device is not patentably distinct from the obvious system/scanner of Hu et al. discussed for claim 17 either. Please refer to the discussion for claim 17 above. The fluorescent lamp (314) is considered a cold cathode fluorescent lamp (CCFL) as discussed for claim 14. With regard to the claim limitation "the heating light source is capable of generating more heat than the CCFL", as discussed for claim 12, since "capable" is used in the claim language, the heating light source of Hu et al., i.e., the red LED (310), is capable of generating more heat than the fluorescent lamp (314) if the red LED is left "ON" for a long time and the fluorescent lamp (314) is not. Note that the last limitation of the claim "and performs scanning of the document using the CCFL" is also met by Hu et al. discussed for claim 12 because after the heating light source (red LED 310) is turned off, the fluorescent lamp (314) is still "ON" for the inherent controller to continue scanning the document until the entire scanning process is completed (see Hu et al., Figs. 3A and 4, col. 6, lines 11-59).

For claim 3, see discussion for claim 16.

Regarding claim 5, see scanning module (200 in Fig. 3A) having light the CCFL (314) and heating light source (red LED 310) installed therein.

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Regarding claim 6, when the heating light source (red LED 310) is enabled (during the predetermined time period for generating the mixed red component signal from the document), the inherent controller performs scanning of the document (col. 6, lines 11-59).

5. Claims 2 and 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 7, 8, 10, and 11 are allowed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cheukfan Lee/  
Primary Examiner, Art Unit 2625